

CLAIMS:

1. An image processing apparatus for a robot which is built in a robot controller, and has a portable teaching pendant connected thereto, comprising:

a unit for fetching an image from a camera;

memory storing image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale, wherein:

said teaching pendant comprises a display unit and a unit for manipulating image processing; and

said display unit displays an image and indication for manipulation of image processing, simultaneously, or in a switching mode or superposition mode.

2. An image processing apparatus for a robot which is designed independent of the robot controller, and has a portable teaching pendant connected thereto, comprising:

a unit for fetching an image from a camera;

memory storing image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale, wherein:

said teaching pendant comprises a display unit and a unit for manipulating image processing; and

said display unit displays an image and indication for manipulation of image processing, simultaneously, or in a switching mode or superposition mode.

3. The apparatus according to ^{claim 1} ~~claim 1 or 2~~, further comprising:

a unit for displaying and superposing geometric graphics on the image displayed on the display unit in accordance with the operation procedure of image processing and specifying an image processing with respect to the image.

4. An image processing apparatus for a robot which is built in a robot controller, comprising:

a unit for fetching an image from a camera;

memory which stores image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or intermediate image data into a gray scale or a color scale, wherein:

a portable teaching pendant is connected to said robot controller through a cable; and

said teaching pendant comprises a unit for generating or editing a robot program, a unit for operating the robot, and a display unit, and can display on the display unit an image converted into the gray scale, and comprises a unit for manipulating image processing; and

said display unit displays, indication for generating or editing of the robot a program and indication for manipulation of image processing, together with an image, simultaneously, or in a switching mode or superposition mode.

5. The apparatus according to claim 4, further comprising a unit for displaying and superposing geometric graphics on the image displayed on the display unit in accordance with the operation procedure of the image

processing and specifying an image processing with respect to the image.

claim 1

6. The apparatus according to ~~claim 1, 2, or 4~~; wherein a part of the operation unit of the teaching pendant is configured by a touch panel.

7. The apparatus according to claim 4, further comprising a unit for incorporating an instruction to process an image into a program of a robot.